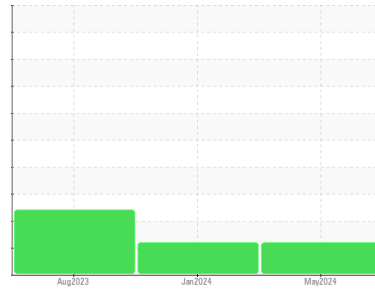




# OIL ANALYSIS REPORT

## Sample Rating Trend



FUEL



Machine Id

**226015**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>GFL0110198</b>	GFL0110178	GFL0060487
Sample Date	Client Info			<b>24 May 2024</b>	08 Jan 2024	16 Aug 2023
Machine Age	mls	Client Info		<b>166440</b>	163365	158957
Oil Age	mls	Client Info		<b>3075</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>43</b>	39	26
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>4</b>	5	1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	5	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>7</b>	20	132
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	72	17
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>920</b>	863	208
Calcium	ppm	ASTM D5185m	1070	<b>1235</b>	1289	1841
Phosphorus	ppm	ASTM D5185m	1150	<b>1091</b>	1120	874
Zinc	ppm	ASTM D5185m	1270	<b>1350</b>	1282	1068
Sulfur	ppm	ASTM D5185m	2060	<b>3719</b>	3654	3508

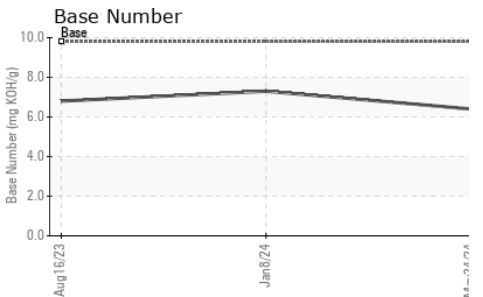
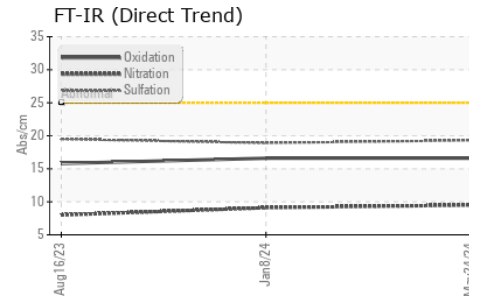
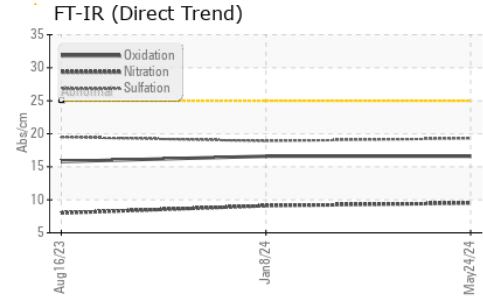
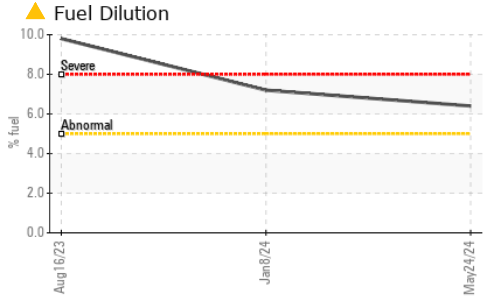
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	16	5
Sodium	ppm	ASTM D5185m		<b>1</b>	<1	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	4
Fuel	%	ASTM D3524	>5	<b>▲ 6.4</b>	▲ 7.2	▲ 9.8

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	9.1	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	18.9	19.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	16.6	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.4</b>	7.3	6.8



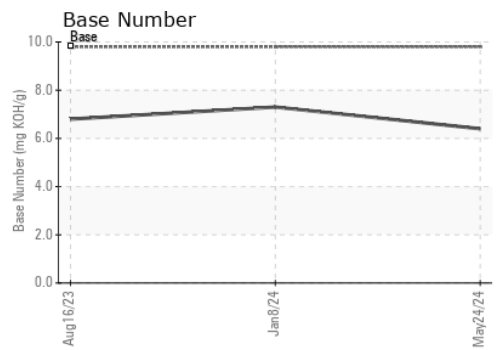
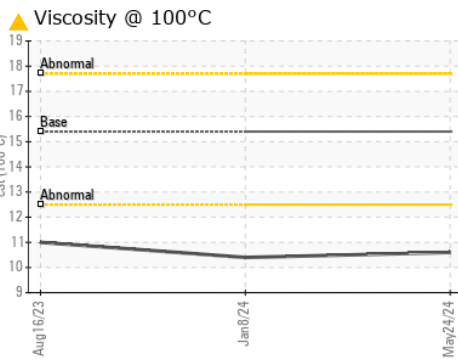
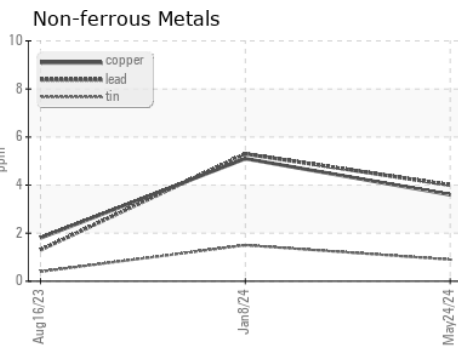
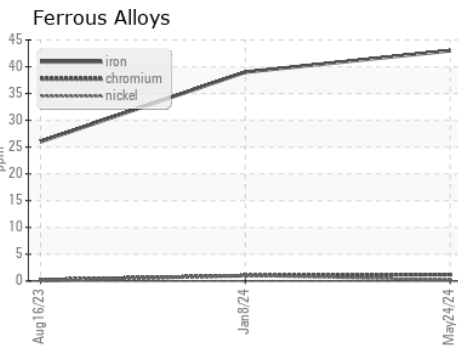
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.6	▲ 10.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110198      **Received** : 28 May 2024  
**Lab Number** : 06193335      **Tested** : 30 May 2024  
**Unique Number** : 11050087      **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 660 - Lynchburg Hauling**  
 2410 Mayflower Drive  
 Lynchburg, VA  
 US 24501  
 Contact: Delbert Beasley  
 dbeasley@countyrecycling.net  
 T: (434)665-5998  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)